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**Kaufman et al.**

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(54) **DISPENSING APPLICATOR FOR FLUIDS**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

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D49,667 S 9/1916 Landline  
D50,050 S 12/1916 Landline  
(Continued)

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FOREIGN PATENT DOCUMENTS

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GB 2 185 880 2/1987  
GB 2 185 880 8/1987  
(Continued)

OTHER PUBLICATIONS

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PCT/US2008/061776, International Search. Report and Written Opinion mailed Oct. 17, 2008, 10 pages.

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(Continued)

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(57) **ABSTRACT**

A single-piece, injection molded, hand-held liquid dispensing applicator. The single-piece applicator comprising a source of fluid and a frangible applicator tip attached to the fluid source. When the frangible applicator tip is broken, the fluid flows from the source to an absorbent member attached to the applicator tip to spread the liquid on a surface. The frangible tip may comprise a support element permanently connected to the fluid source, a relatively rigid tongue element, and a frangible region therebetween. The tongue element may comprise ribs for reinforcement. The frangible tip may comprise a semi-permeable or non-permeable cover to control the speed and direction of the dispersion of the fluid. The dispensing applicator may be used in various medical applications.

**6 Claims, 39 Drawing Sheets**

